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Listing of the Claims

1. (Currently amended) A stabilized cyclosiloxane material for use as a dielectric precursor, the stabilized cyclosiloxane material comprising a cyclosiloxane reagent, ~~and~~ an end-capping reagent, and a free radical inhibitor.

2. (Cancelled)

3. (Currently amended) The stabilized siloxane dielectric precursor according to claim 1, wherein said ~~siloxane~~ cyclosiloxane reagent is of the formula:

$$[R\,R'Si\text{-}O]_n$$

wherein each of R and R' is same or different and independently selected from the group consisting of hydrogen, C_1-C_8 alkyl, C_1-C_8 alkoxy, C_1-C_8 alkene, C_1-C_8 alkyne, and C_1-C_8 carboxyl; and n is from 2 to 8.

4. (Currently amended) The stabilized siloxane dielectric precursor according to claim 1, wherein said ~~siloxane~~ cyclosiloxane reagent is selected from the group consisting of: polyhedral oligomeric silsesquioxanes (POSS), octamethylcyclotetrasiloxane (OMCTS), hexamethylcyclotetra-siloxane (HMCTS), tetramethylcyclotetrasiloxane (TMCTS), and mixtures thereof.

5. (Currently amended) ~~The stabilized siloxane dielectric precursor according to claim 1,~~ A stabilized cyclosiloxane material for use as a dielectric precursor, the stabilized cyclosiloxane material comprising a cyclosiloxane reagent and an end-capping reagent wherein said ~~siloxane~~ cyclosiloxane reagent is 1,3,5,7- tetramethylcyclotetrasiloxane (TMCTS).

6. (Currently amended) The stabilized siloxane dielectric precursor according to claim 1, wherein said end-capping reagent and said free radical inhibitor together form a stabilizing agent which is present in a concentration range from about 0.01% to 10.0 % by weight based on a total weight of said material, and ~~comprises as~~ said end-capping reagent ~~a reagent~~ is selected from the group consisting of bis(trimethylsiloxy)methylsilane, silyl-N-methylacetamides, trifluoropropyldimethylsilyl-N-methylacetamide and hexamethyldisilanzane.

7. (Previously presented) The stabilized siloxane dielectric precursor according to claim 1, wherein said stabilizing agent is present in a concentration range from 1.00 to 10.00 % by weight.

8. (Currently amended) The stabilized siloxane dielectric precursor according to claim ~~2~~ 6, wherein said stabilizing agent comprises the combination of bis(trimethylsiloxy)methylsilane and butylated hydroxyl toluene.

9. (Original) The stabilized siloxane dielectric precursor according to claim 1, wherein said end- capping agent reacts with hydroxyl or radical groups resulting from cleavage of a [Si-O] bond of the siloxane dielectric precursor.

10. (Previously presented) The stabilized siloxane dielectric precursor according to claim 1, wherein said end-capping agent includes a monofunctional-silylating agent having a formula $R^1R^2R^3SiX$, wherein X is a reactive site, selected from the group consisting of H, OH, silyloxy, and nitrogen-containing silyl , each of R^1, R^2 and R^3 is the same or different and is independently selected from hydrogen, C_1-C_8 alkyl, and C_5-C_{12} aryl.

11. (Previously presented) The stabilized siloxane dielectric precursor according to claim 1, wherein said end-capping reagent is selected from the group consisting of: napthylphenylmethylsilanol (NPMS), silyl-N-methylacetamides, trifluoropropyldimethylsilyl-N-methylacetamide (TFSA), bis(trimethylsiloxy)methylsilane, and hexamethyldisilanzane.

12. (Cancelled)

13. (Currently amended) The stabilized siloxane dielectric precursor according to claim ~~6~~ ~~12~~, wherein said stabilizing agent comprises a phenol.

14. (Currently amended) The stabilized siloxane dielectric precursor according to claim 6 ~~12~~, wherein said stabilizing agent comprises a hindered phenol.

15. (Currently amended) The stabilized siloxane dielectric precursor according to claim 6 ~~12~~, wherein said free radical inhibitor is selected from the group consisting of butylated hydroxy toluene (BHT), hydroquinone, butylated hydro anisole (BHA) and diphenylamine.

16. (Withdrawn) A process for stabilizing a cyclosiloxane dielectric precursor, including, dosing a cyclosiloxane reagent with a stabilizing agent selected from the group consisting of end-capping reagents and optionally a free radical inhibitor.

17. (Withdrawn) The process according to claim 16, wherein said stabilizing agent is present in a concentration range from about 0.01% to 10.0 % by weight.

18. (Withdrawn) The process according to claim 16, wherein said stabilizing agent is present in a concentration range from about 0.05 to 1.00 % by weight.

19. (Withdrawn) The process according to claim 16, further comprising a purification step.

20. (Withdrawn) The process according to claim 19, wherein said dosing occurs before, after or during said purification step.

21. (Withdrawn) The process according to claim 19, wherein said purification step is selected from the group consisting of

(1) contacting the cyclosiloxane dielectric precursor with an adsorbent bed material, so as to remove therefrom at least a portion of the water, and optionally at least one other impurity, to produce a cyclosiloxane precursor having a reduced level of water and optionally at least one other impurity; and removing the purified cyclosiloxane precursor from the adsorbent bed material; and

(2) distilling a starting mixture comprising at least water and at least one cyclosiloxane dielectric precursor, in the presence of an azeotropic component, so as to form an azeotropic mixture with the water contained in said starting mixture; in order to produce (A) a distillate fraction comprising water and the azeotropic component and (B) a balance fraction comprising cyclosiloxane, whereby said balance fraction (B) is substantially reduced in water relative to said starting mixture; and

(3) a combination of 1 and 2;

22. (Withdrawn) The process according to claim **19**, wherein said purification step reduces concentrations of water and trace acids in cyclosiloxanes to levels in a range of from about 1 to 20 ppm and from about 0.001 to 0.00001 wt %, respectively.

23. (Withdrawn) A CVD process for depositing a low dielectric constant thin film on a substrate comprising chemical vapor depositing a dielectric thin film layer on a semiconductor substrate from a cyclosiloxane reagent dosed with a stabilizing agent selected from the group consisting of end-capping reagents and optionally a free radical inhibitor.

24. (Withdrawn) The CVD process according to claim **23**, further comprising:

placing the substrate in a chemical vapor deposition apparatus;

introducing at least one cyclosiloxane reagent dosed with a stabilizing agent into the apparatus;

vaporizing the cyclosiloxane reagent;

transporting the vaporized cyclosiloxane reagent into a chemical vapor deposition zone containing the substrate, optionally using a carrier gas to affect such transport;

contacting the cyclosiloxane vapor with the substrate under chemical vapor deposition conditions to deposit a thin film comprising an organosilicon composition; and

annealing the organosilicon thin film to produce a porous, SiCOH, low dielectric constant thin film.

25. (Withdrawn) The CVD process according to claim 23, comprising residual process gases selected from the group consisting of NH_3, O_2 and CO_2.

26. (New) A stabilized cyclosiloxane material for use as a dielectric precursor, the stabilized cyclosiloxane material comprising a cyclosiloxane reagent, and an end-capping reagent, wherein said cyclosiloxane reagent is selected from the group consisting of polyhedral oligomeric silsesquioxanes (POSS), hexamethylcyclotetra-siloxane (HMCTS), tetramethylcyclotetrasiloxane (TMCTS), and mixtures thereof.

27. (New) The stabilized cyclosiloxane material of claim 26, dosed with a stabilizing agent comprising an end-capping reagent and optionally a free radical inhibitor.

28. (New) The stabilized cyclosiloxane material of claim 27, wherein said stabilizing agent is present in a concentration from about 0.01% to about 10.0% by weight based on a total weight of said material.

29. (New) The stabilized cyclosiloxane material of claim 28, where said end-capping reagent is selected from the group consisting of bis(trimethylsiloxy)methylsilane, silyl-N-methylacetamides, trifluoropropyldimethylsilyl-N-methylacetamide and hexamethyldisilanzane.

30. (New) The stabilized cyclosiloxane material of claim 29 comprising said free radical inhibitor, wherein said free radical inhibitor is selected from the group consisting of butylated hydroxy toluene (BHT), hydroquinone, butylated hydro anisole (BHA) and diphenylamine.

31. (New) The stabilized cyclosiloxane material of claim 26, wherein said cyclosiloxane reagent is POSS.

32. (New) The stabilized cyclosiloxane material of claim 26, wherein said cyclosiloxane reagent is HMCTS.

33. (New) The stabilized cyclosiloxane material of claim 30, wherein said stabilizing agent comprises a phenol.

34. (New) The stabilized cyclosiloxane material of claim 33, wherein said stabilizing agent comprises a hindered phenol.

35. (New) The stabilized cyclosiloxane material of claim 29, wherein said end capping reagent is selected from the group consisting of silyl-N-methylacetamides, trifluoropropyldimethylsilyl-N-methylacetamide and hexamethyldisilanzane.

36. (New) The stabilized cyclosiloxane material of claim 29, wherein said end capping reagent is selected from the group consisting of trifluoropropyldimethylsilyl-N-methylacetamide and hexamethyldisilanzane.

37. (New) The stabilized cyclosiloxane material of claim 36, wherein said end capping reagent is hexamethyldisilanzane.

38. (New) The stabilized cyclosiloxane material of claim 30 comprising said free radical inhibitor, wherein said free radical inhibitor is selected from the group consisting of butylated hydroxy toluene (BHT), hydroquinone, and butylated hydro anisole (BHA).

39. (New) The stabilized cyclosiloxane material of claim 38 comprising said free radical inhibitor, wherein said free radical inhibitor is selected from the group consisting of butylated hydroxy toluene (BHT), and hydroquinone.

40. (New) The stabilized cyclosiloxane material of claim 39 comprising said free radical inhibitor, wherein said free radical inhibitor is butylated hydroxy toluene (BHT).

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